

Appl. No. 09/669,042
Amtd. Dated December 15, 2005

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This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1 1. (cancelled).

1 2. (previously presented) The device as in claim 8, 10 or
2 11, characterized in that, over its length, the channel
3 features varying cross-sectional dimensions or shapes.

1 3. (previously presented) The device as in claim 8, or
2 11, characterized in that a matching stub line serving for the
3 tuning of the acoustic transmission properties between the
4 coupling opening and the input or output extends into said
5 channel and is itself bounded by the material of the shell
6 member.

1 4. (previously presented) The device as in one of the
2 claims 8, or 11, characterized in that, over at least a
3 substantial segment of its length, the channel extends
4 essentially parallel to the outer surface of the device.

1 5. (previously presented) The device as in one of the
2 claims 8, or 11, characterized in that the device is a custom-
3 moulded hearing aid.

1 6. (previously presented) The device as in one of claims
2 8, or 11, characterized in that the device is a custom-
3 moulded, in-the-ear hearing aid and that the channel is part
4 of a venting system for the ear drum.

5 7. (previously presented) The device as in one of the
6 claims 8, or 11, further comprising another channel,
7 characterized in that at least certain segments of said

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8 channels extend in parallel fashion.

1 8. (previously presented) A hearing device comprising an
2 acoustical/electrical converter with an acoustical input being
3 linked by means of a channel to a coupling opening arrangement
4 exclusively at an outer surface of said device adapted to be
5 exposed to ambient when an individual wears said hearing
6 device, said device having a unitary shell member forming said
7 outer surface and defining an inner space distinct from said
8 channel, said channel comprising a part provided in and along
9 said shell member and being formed in the material of said
10 shell member.

1 9. (canceled).

1 10. (previously presented) A hearing device comprising:
2 a one-part shell member forming at least a portion of an
3 outer surface of said device, said shell member
4 defining an interior space of said device, said
5 shell member forming a channel out of the material
6 of said shell member, said channel being formed in
7 and along said shell member and being distinct of
8 said interior space, and, over at least a
9 substantial segment of its length, said channel
10 running essentially parallel to said outer surface;
11 and
12 at least one of an acoustical/electrical converter and an
13 electrical/acoustical converter including an
14 acoustical input or output, respectively, wherein
15 said input or output is acoustically linked to a coupling
16 opening via said channel forming an acoustic path
17 from said input or output to said coupling opening
18 exclusively at an outer surface of said device and
19 adapted to be exposed to ambient or an ear canal of

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20 an individual wearing said hearing device but not
21 both, and further wherein
22 said channel is tuned to have specific acoustical
23 characteristics.

1 11. (previously presented) A hearing device comprising:
2 a one-part shell member forming at least a portion of an
3 outer surface of said device, said shell member
4 defining an interior space of said device, said
5 shell member forming a channel out of the material
6 of said shell member, said channel being formed in
7 and along said shell member and being distinct from
8 said interior space;
9 an electrical/acoustical converter including an
10 acoustical output, wherein
11 an acoustic path is formed from said output to a coupling
12 opening entirely in said shell member using said
13 channel, whereby said output is acoustically linked
14 to said coupling opening via said channel along at
15 least some portion of said acoustic path.

1 12. (previously presented) The hearing device of claim
2 11, wherein said acoustic path from said output to said
3 coupling opening is exclusively at an outer surface of said
4 device and is adapted to be exposed to an ear canal of an
5 individual wearing said hearing device.

1 13. (previously presented) The hearing device of claim
2 11, wherein said acoustical output is linked to said channel
3 directly, or via a conduit directly linked to said acoustical
4 output and also directly linked to said channel.

1 14. (previously presented) The hearing device of claim 8,
2 wherein an acoustic path is formed from said output to said
3 coupling opening entirely in said shell member using said

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4 channel, whereby said output is acoustically linked to said
5 coupling opening via said channel along at least some portion
6 of said acoustic path.

1 15. (previously presented) The hearing device of claim 8,
2 wherein said acoustical input is linked to said channel
3 directly, or via a conduit directly linked to said input and
4 directly linked to said channel.

1 16. (new) An outside-the-ear hearing device comprising:
2 an otoplasty having an outer surface at least partially
3 formed by a one-piece otoplasty shell formed of a
4 material and defining an inner space and an acoustic
5 opening in said outer surface; and
6 an electrical/acoustical transducer having an acoustic
7 output coupled to said opening via an acoustically
8 sealed acoustic lead comprised of said material and
9 integrated at least partially within said shell,
10 wherein said acoustic lead runs as a channel along
11 the shell and is bound by said material of said
12 shell.

1 17. (new) The device of claim 16, wherein said channel
2 has a cross-sectional area or shape that varies along the
3 length of said channel.

1 18. (new) The device of claim 17, further comprising a
2 line section at least partially bound by said material and
3 having an opening connected to said channel, said line section
4 for adapting acoustic transmission conditions between said
5 acoustic output and said opening.

1 19. (new) The device of claim 16, further comprising a
2 line section at least partially bound in said material and
3 having an opening connected to said channel, said line section

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4 for adapting acoustic transmission conditions between said
5 acoustic output and said opening.

1 20. (new) An outside-the-ear hearing device comprising:
2 an otoplasty having an outer surface at least partially
3 formed by a one-piece otoplasty shell formed of a
4 material and defining an inner space and an acoustic
5 opening in said outer surface; and
6 an electrical/acoustical transducer having an acoustic
7 output directly coupled to said opening via an
8 acoustically sealed acoustic lead, wherein
9 said acoustic lead runs as a channel along the shell and
10 is at least partially bound in said material of said
11 shell.